Reasons why patients by-pass their GP to visit a hospital Emergency Department.

Rieffe, C.J.; Oosterveld, P.; Wijkel, D.; Wiefferink, K.

published in
British Journal of Accident and Emergency Medicine
1999

DOI (link to publisher)
10.1016/S0965-2302(99)80054-X

document version
Publisher's PDF, also known as Version of record

Original article

Reasons why patients bypass their GP to visit a hospital emergency department

C. Rieffe, P. Oosterveld, D. Wijkel, C. Wiefferink

Knowledge about what motivates patients to visit the emergency department (ED) of a hospital for minor complaints, instead of visiting their general practitioner (GP), can help to reduce unnecessary utilization of expensive services. This paper reports on a study designed to investigate the reasons why patients visit the ED and to determine the influence of patient characteristics on specific motives. A multidimensional measurement instrument was designed to identify the motives of patients who bypass their GP and visit the ED. The instrument assessed 21 motives, all measured by means of three questions in Likert format. During a period of 1 week, all patients who visited the ED of two hospitals in Amsterdam were asked to complete a questionnaire when they were 'self-referred' with minor complaints. A total of 403 questionnaires were analysed, and the results show that motives relating to the GP play a minor role in the decision of patients to visit the ED. Profiles of two major patient groups could be identified. One group comprised patients with a high socio-economic status living in suburbs, whose motives for visiting the ED are mainly of a financial nature. Patients in the second group mainly lived in the inner-city, and preferred the expertise and facilities provided by the ED.

Carolien J. Rieffe Assistant Professor, Department of Developmental Psychology, Free University **Paul Oosterveld** Department of Methodology, University of Amsterdam **Dirk Wijkel, Carin Wiefferink** Research Centre, Primary/Secondary Health Care, and Free University, Amsterdam, The Netherlands

Correspondence to: Carolien Rieffe, Department of Developmental Psychology, Free University, vd Boechorststraat 1, 1081 BT Amsterdam, The Netherlands

Manuscript accepted: 26 May 1999

Introduction

In major cities, it is a common habit of many patients to visit the emergency department (ED) of a hospital as a primary care provider, which implies that they bypass their general practitioner (GP). Several researchers have pointed out that the overuse of EDs for minor complaints decreases the quality of care and increases costs. Caplan (1975) summarized the negative consequences as follows:

> Patients are seen by unfamiliar doctors who are unaware of their past history and have no access to their records. Family background, conditions of work, and emotional make-up are not usually explored and may not be thought relevant. ... minor illnesses are over-investigated, and laboratory and radiological studies are used to take the place of clinical judgements. A relatively low quality of care has been shown to be provided at considerable expense.

At least half of the patients who visit EDs in the major Dutch cities present complaints that could be dealt with by a GP (Rieffe et al. 1996). This fact provides sufficient reason for health care financers to try to reduce the number of ED visits, and a good starting point for an active policy is knowledge about what motivates patients to bypass their GP.

Studies carried out in the Netherlands, as well as in Canada, Denmark, UK, Ireland and New Zealand, have addressed the motivation of patients to visit an ED. The results of these studies demonstrate, for example, that the travelling distance to the GP or the absence of other adequate sources of care are the main motives for a visit to the ED (Beckers 1986; Davison et al. 1983; Kljakovic et al. 1981; Kelly & Birtwhistle 1993;

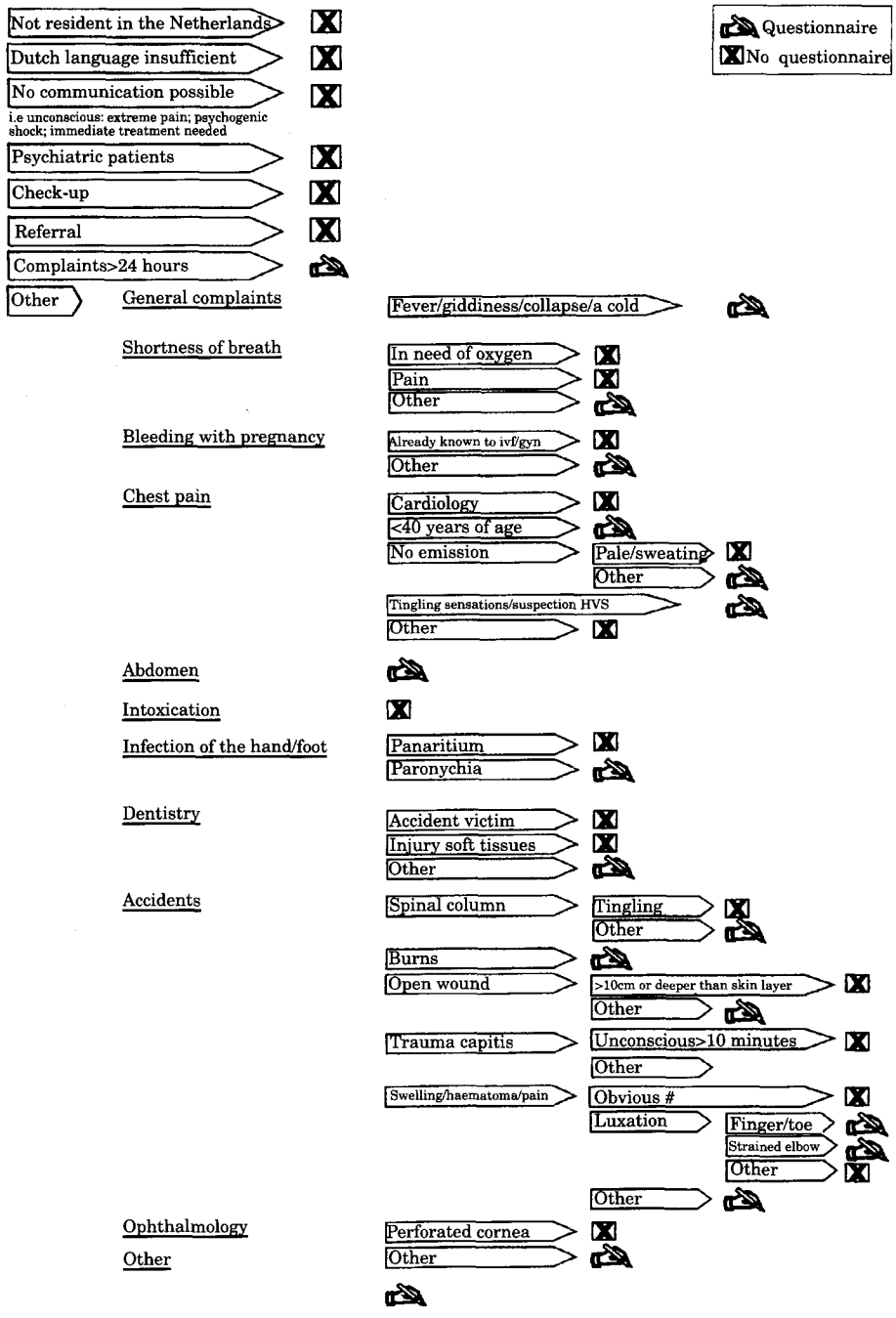

Fig. 1 Classification scheme

Campbell 1994; Grumbach et al. 1993). In their review, Padgett and Brodsky (1992) also argue that the unavailability of alternative care is the most common reason why patients make non-urgent visits to the ED. Furthermore, patients explained their choice by arguing that they needed immediate medical help or wanted a second opinion (Davison et al. 1983; Kljakovic et al. 1981; Foroughi & Chadwick 1989; Ingram et al. 1978). Although these results seem plausible, one could question their validity, because the formulation of the questions and the way they were presented might have influenced the results. In some studies, ED patients were asked (oral or

Table 1 Scale content, mean and standard deviation of Motivation questionnaire (n = 430)

Scale	Mean Score	Standard deviation	Cronbach's Alpha	Items per scale
*Anxiety**	*3.91*	*0.77*	*0.89*	*18*
ED always open	4.41	0.92	0.73	3
Open door policy ED	4.33	0.94	0.75	3
Need immediate help	4.06	0.93	0.53	3
Facilities ED	3.91	1.15	0.83	3
Expertise ED	3.59	1.14	0.78	3
Sincerity complaint	3.14	1.09	0.61	3
*Convenience**	*2.72*	*0.81*	*0.79*	*12*
ED is close by	3.35	1.14	0.60	3
Sent by family/friends	3.08	1.24	0.69	3
Visiting the hospital	2.26	1.11	0.70	3
GP too far	2.17	1.15	0.72	3
*Difficulty towards PHC**	*2.29*	*0.79*	*0.94*	*33*
Familiar with hospital	2.69	1.13	0.61	3
GP not appropriate	2.68	1.04	0.64	3
Expectation GP will refer	2.49	1.04	0.66	3
GP not available	2.46	1.16	0.76	3
Difficult to contact GP	2.40	1.07	0.63	3
Inappropriate medical assurance	2.34	1.07	0.59	3
Unknown to GP	2.25	1.04	0.61	3
Dissatisfied with GP	2.12	1.09	0.77	3
Second Opinion	2.08	1.09	0.78	3
Do not want to disturb GP	1.92	1.01	0.77	3
Anonymity ED	1.76	0.99	0.78	3

*compounded scale (factor)

written) open-ended questions (Caplan 1975; Davies 1986; Singh 1988; Wabschall 1983). In other studies, just one single open-ended question was asked: 'Why did you come to the emergency department?' (Foroughi & Chadwick 1989; Bowling et al. 1987; Powers et al. 1983). However, the choice of the patient to visit the ED can be based on more than one motive, whereas some

motives may be more important than others. This study will first focus on the concept of motivation to seek medical care in an ED for complaints that could be dealt with by GPs. The instrument designed to measure many different motives and their relative importance will be described.

Various researchers have pointed out that patient characteristics could also influence the motives to visit an ED. Andren and Rosenqvist (1985), for instance, found that people who live alone are frequent users of ED facilities. Therefore, the second aim of this research was to investigate whether patient characteristics, such as age, income, education, living conditions, urgency and duration of the complaint are related to specific motives.

One comment should be made on the terminology which has been used. The term 'ED patients' in this article will refer to patients who visit an ED with complaints that could be dealt with by a GP. However, this does not imply that it is always considered to be the task of the GP to treat these patients. Like a doctor in the ED a GP can refer a patient to the most appropriate specialist or arrange an emergency admission, for example in the case of an acute appendicitis.

Materials and methods

The EDs of two major hospitals in Amsterdam participated in this study: the Academic Hospital of the Vrije Universiteit (suburban hospital), which is located in a suburb of Amsterdam and also treats patients from surrounding towns, and the 'Onze Lieve Vrouwe Gasthuis' (inner-city hospital), located in the inner-city. Both EDs have an average case-load of 100 patients per day. Data-collection took place during a period of 1 week, 24 hours per day. All patients who met the inclusion criteria were invited to participate by a member of the research team and asked to complete a questionnaire before they were seen by the medical staff.

Classification scheme

The identification of patients who should have contacted their GP for an initial visit is not clear-cut. However, in order to identify this research population in the most uniform way possible, a preliminary study was dedicated to the development of a classification scheme, based on a literature review and expert assessment by ED staff (Rieffe & Wiefferink 1995). According to this classification scheme, patients with complaints

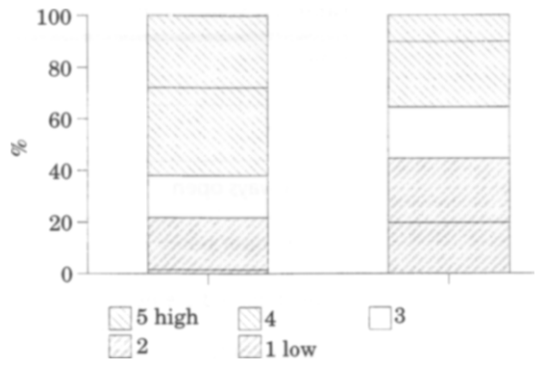

Fig. 2 SES for suburban and inner-city hospital. Social Economic Status consists of a combination of education and income: 1 = low income, low education; 2 = low income and middle or high education or middle income and high education; 3 = middle income, middle education; 4 = middle or high income and low education or high income and middle education; 5 = high income and high education.

lasting for longer than 24 hours always received a questionnaire (Fig. 1). Patients were excluded if they could not read Dutch, Arabic or Turkish, and also if they were tourists, psychiatric patients, patients who had been referred to the ED, or patients who were too confused or in too much pain to complete a questionnaire. The remaining patients were assessed on the basis of their complaints. As it would be too lengthy to describe this scheme in more detail here, reference is made to the relevant report (Beunder 1993). A research team, recruited from medical students who had finished their pre-clinical training, was instructed to identify patients according to the classification scheme and to administer the questionnaire.

Motivation questionnaire

Based on a literature review and interviews with ED employees, a list was made of all plausible motives that could influence the decision of patients to visit an ED. A total of 21 motives was identified, some concerning the GP and others pertaining to the ED (Table 1). Three statements (items) were carefully formulated to represent each motive. Thus, the motivation questionnaire contained 63 items. Patients were asked to score every item on its importance, at the time they decided to come to the ED, on a Likert-type scale.

One example of a statement is:

'I have no personal contact with my GP.'

The instruction was:

'At the time I decided to visit the ED, this was: very unimportant (1); slightly unimportant (2);

Table 2 Factor loadings on Motivation scales after Varimax rotation (n = 430)

	Factor 1 *Difficulty PHC*	Factor 2 *Anxiety*	Factor 3 *Convenience*
Dissatisfied with GP	0.80	0.09	0.21
Difficult to contact GP	0.73	0.12	0.20
Second opinion	0.72	0.07	0.28
Unknown to GP	0.69	0.16	0.34
GP not available	0.69	0.20	0.22
Expectation GP will refer	0.69	0.28	0.03
GP not appropriate	0.67	0.37	– 0.12
Do not want to disturb GP	0.66	0.15	0.26
Anonymity hospital	0.63	0.02	0.39
Inappropriate medical assurance	0.62	0.24	0.43
Familiar with hospital	0.50	0.28	0.22
ED 24 hours open	0.05	0.82	0.15
Open door policy ED	– 0.02	0.78	0.33
Facilities ED	0.27	0.76	– 0.10
Expertise ED	0.33	0.76	0.01
Need immediate help	0.19	0.58	0.13
Sincerity complaint	0.51	0.50	– 0.09
ED is close by	0.09	0.44	0.73
Visiting hospital for other reason	0.29	0.00	0.71
GP too far	0.40	– 0.07	0.57
Sent by family/friends	0.26	0.19	0.29

neutral (3); slightly important (4); or, very important (5).'

Patients were asked to circle the appropriate answer. The questionnaire also included questions about gender, age, number of persons in the household, time of arrival at the ED, and socio-economic status (a combination of income and level of education [Rieffe & Wijkel 1995]).

Two pilot studies of the questionnaire were performed, in order to test its construct validity and reliability (Rieffe & Wijkel 1995). The results from the first test (n = 109) showed a floor effect for scales (motives) concerning the GP. This could be due to social desirability, because patients might be reluctant to express themselves negatively about their GP. Since it was not the intention to develop a questionnaire that could evoke such feelings or thoughts, items concerning the GP were closely examined and, where necessary, reformulated in the most neutral way. The second pilot study (n = 133) showed no floor effect. Correlation matrices showed high correlations between a motive scale

Table 3 Standardized coefficients (Beta values) from regression analysis of patient characteristics on three factors (figures in bold are significant at the 5% level)

Factor	Anxiety	Convenience	Difficulty PHC
Multiple R	0.24	0.28	0.22
Members in household	0.08	0.07	- 0.06
SES	- 0.10	**- 0.27**	**- 0.19**
Urgency	**0.19**	- 0.06	- 0.04
Duration complaint	- 0.09	- 0.00	0.05
Age	0.11	0.07	0.00

and its constituent items, and low correlations between these items and other motive scales. The correlations between the scales were low. Principal component analyses showed a three-factor model, which was also used in the final study ($n = 430$; Table 2). One factor concerns motive scales that refer to friction with, or difficulty in, utilizing primary health care (PHC) services. A second factor concerns scales that refer to the anxiety of patients about their complaint, and a third factor concerns scales that refer to the convenience of visiting an ED. The results of these analyses are presented in Table 2. These factors will be used as compounded scales for further analyses.

The reliability of the motive scales was found to be average or good, given that each scale consists only of three items. Two scales have a Cronbach's Alpha between 0.50 and 0.59; eight scales between 0.60 and 0.69; 10 scales between 0.70 and 0.79; and one scale above 0.80 (Table 1). The reliability of these compounded scales (factors) is good: 0.79 to 0.94.

Urgency scale

In order to be able to relate motivation to the urgency of the complaint, an urgency scale was developed. Complaints for which patients visit an ED are classified into three categories: (Beunder & Thijs 1993).

1. Complaints that form no short-term danger to a function or part of the body of the patient, implying that a delay in treatment will have no harmful consequences.
2. Complaints that form no danger to a function or part of the body, although treatment within 12 hours is required to prevent complications in the long-term.
3. Complaints that are assumed to endanger a function or part of the body in the short term, which require treatment within 6 hours.

Note that some complaints might be very urgent but need not necessarily be treated at the ED, for example congestive heart failure. The score was determined after the patient had been diagnosed and treated. The inter-rater reliability of the urgency scale was tested on the basis of 500 patient records derived from the archives and was found to be extremely reliable, because all 500 records were scored in the same urgency category by two people independently (Beunder & Thijs 1993).

Subjects

During 1 week in the autumn of 1993, a total of 1200 patients visited the EDs of the participating hospitals. According to the classification scheme (Rieffe & Wiefferink 1995), 780 of the 1200 patients could have been seen by a GP and were therefore eligible for inclusion in the intended research population. Of these 780 patients, 511 completed the questionnaire (66% of 780), and the other 269 patients were either too confused, in too much pain or reluctant to complete a questionnaire. Only fully-completed questionnaires were included in the analysis (430). Of the 430 remaining patients, 65% were male, 35% were female, and the mean age was 31 (SD 15.1).

Results

Table 1 presents the mean score and standard deviation for each factor (italics) and for each motive scale. A mean score of less than 3 indicates that patients perceive this motive as neutral or unimportant in their decision. Scales

Table 4 Scores on three Motivation scales for suburban hospital (n = 189) and inner-city (n = 241)

	Suburban hospital		Inner-city				
Factors	mean	SD	mean	SD	t	Df	P
Anxiety	11.63	2.25	11.78	2.36	− 0.68	428	0.495
Convenience	7.59	2.37	8.59	2.39	− 4.33	428	0.000
Difficulty PHC	6.47	2.13	7.19	2.48	− 3.21	428	0.001

Table 5 Standardized coefficients (Beta values) from regression analysis of SES and urgency on three factors, by hospital (figures in bold are significant at the 5% level)

	Anxiety	Convenience	Difficulty PHC
Suburban hospital			
Multiple R	0.10	0.29	0.23
SES	− 0.06	**− 0.28**	**− 0.23**
Urgency	0.07	− 0.04	− 0.01
Inner-city			
Multiple R	0.25	0.22	0.17
SES	− 0.05	− 0.14	− 0.14
Urgency	0.24	0.16	0.08

with a mean of 3 or higher are perceived as important motives for visiting an ED. The scales are ranked according to their mean scores. A striking result is that motive scales concerning the anxiety of patients, such as the expertise and facilities provided by the ED, are perceived by patients as important, whereas scales concerning difficulty in utilizing PHC services are perceived as neutral or unimportant.

The relationship between the compounded scales (factors) and the number of persons in the household, socio-economic status (SES), urgency, duration of the complaint and age was examined by means of regression analysis. The results are shown in Table 3, and indicate that the more urgent the patient's problem, the more anxious or concerned the patient is. Furthermore, the lower the score on the SES, the more the patient valued convenience, and the greater the difficulties experienced in utilizing the PHC services.

In comparing both hospitals, no differences were found between patient groups concerning average age, number of persons in the household, or duration and urgency of the complaint. However, there was a clear difference concerning SES (Fig. 2). Almost two-thirds (62%) of the patients who visited the suburban hospital scored high or very high (4 and 5) on SES, while 65% of the patients in the inner-city hospital had a medium or lower score (3 or less). They also varied in their response to the motivation scales.

The results presented in Table 4 show that for patients who visited the inner-city hospital *convenience* and *difficulty in utilizing PHC services* was more important in their decision to visit the ED than for patients who visited the suburban hospital. As only urgency and SES related to the scores on the motivation scales, the regression analysis per hospital included these components only. Table 5 shows that the relationship between urgency and *anxiety* was only found for patients who visited the inner-city hospital, while the relationship between SES and *convenience* and *difficulty in utilizing PHC services* was only found for those who visited the suburban hospital. The latter indicates that patients with a high SES who live in

the suburbs did not visit the ED because they just happened to be in the neighbourhood, neither did they perceive a possible friction towards their GP as important. They intentionally select the ED when they are in need of medical treatment.

Discussion and conclusions

The most striking conclusion which can be drawn from this study is that motives concerning the GP only play a minor role in a patient's decision to bypass the GP and visit an ED for non-urgent complaints. This is in contrast with the findings of other studies, in which the inaccessibility of the services of a GP were considered to be the main reason for visiting an ED for minor complaints. One should wonder if this divergence might be due to the specific situation in Amsterdam with its outstanding ED facilities in hospitals and easy access for patients, or to the specific way in which the motives were investigated. Since other studies have also been carried out in big cities with good ED facilities, it is doubtful that the location of the hospitals in Amsterdam explains the divergence. GP services in Dutch cities might be even more accessible than those in big cities in other countries. Most Dutch patients are registered with a GP in their immediate neighbourhood, whereas, for example, Grumbach et al. (1993) argue that two-thirds of the patients they studied had no regular source of care. Patients who do not have a regular source of primary care might make more use of EDs.

Another possible explanation of this difference in outcome could be connected with the question 'Why did you come to the ED?', which was frequently used in other studies. This question might evoke a defensive attitude, which attributes the 'blame' to the GP. It is likely that the motivation questionnaire applied in the present study would not evoke such an attitude, because all statements were presented to the patient in an identical manner. The patients, therefore, had the opportunity to evaluate many relevant motives at the same time.

In this study, patients are very clear about the important role that anxiety about their complaint plays in their decision to visit the ED. They visited the ED because of the convenience of the services offered: it is always open, there is no need to make an appointment, and there is immediate assistance. Moreover, patients have confidence in the expertise and facilities provided by the ED. Age, duration of the complaint, and number of persons in the household was not related to the motivation of patients to visit the ED, and in these elements there was no difference between the two hospitals. Visits to the inner-city hospital, however, were more often the result of geographical proximity, than were visits to the suburban hospital. This is obvious, because the suburban hospital is located in an area which serves many patients from surrounding cities. The distribution of urgency of the complaints was the same across both hospitals, but urgency was only found to be related to specific motives for the inner-city population. The more urgent the patient's complaints are, the more anxious the patient is. That needs no further explanation. However, in the suburban hospital population some odd results were found that need closer examination.

Firstly, urgency of the complaints was not related to any motivation scale of patients visiting the suburban hospital. Secondly, patients with a high SES were strongly represented at the suburban hospital, and patients in this group do not seem to care too much about convenience, or any possible reluctance to contact the GP. One might argue that this group, on the basis of a higher level of education, is more aware of the expertise and facilities provided by the ED, but they showed no difference in this respect from patients with a low SES. The explanation should perhaps be sought in the various insurance schemes. Patients with a low income have an insurance which provides them with free access to primary health care and EDs, but, above a certain level of income, patients are obliged to obtain private insurance. All private insurance schemes in the Netherlands reimburse a consultation in an ED, but many schemes do not reimburse a consultation with a GP. Therefore, it is possible that patients with a high SES visit an ED because of financial reasons. This might also explain why urgency is not related to anxiety in this group. Although one scale in the motivation questionnaire explicitly asked patients how important financial reasons were when they decided to visit the ED (for example the item, 'it is cheaper to visit the ED'), no differences were found between the responses of the two groups of patients on this scale. This seems to contradict the explanation. Yet, it seems unreasonable to expect patients with a high income to openly admit that they decided to visit the ED because it is cheaper than a visit to the GP. Moreover, the literature provides some support for

this explanation (Murphy et al. 1997). The Irish health insurance system is comparable to the Dutch system: the ED is cheaper than the GP for people who have to pay their own primary health care costs. However, in Ireland, fewer patients visited an ED, after the implementation of a regulation in which these patients had to pay for a visit to the ED as well as a visit to their GP, whereas the percentage of patients who did not have to pay for primary health care or a visit to the ED remained unchanged.

In conclusion, two types of patients who visit an ED can be identified in Amsterdam. One type is the patient with a high SES living in the suburbs, who seems to consult the ED mainly for financial reasons. Most of these patients have an insurance policy which covers a consultation at the ED, but receive no reimbursement for a consultation with the GP. If this is the case, such behaviour can be altered by charging equally for both types of consultation. The second type of patients identified visit the ED because they are worried and have confidence in the expertise and facilities provided by the ED. Furthermore, these patients value highly the services offered by the ED, as well as the fact that the ED is always accessible. Better education of the public about the distribution of services between the ED and the GP might increase confidence in the GP. However, this only partially solves the problem, because even a patient with a high level of confidence in the GP might still visit the ED because of the better services offered. In that case, GPs might consider improving their services in order to 'entice' patients to visit them instead of an ED.

Acknowledgements

We thank Harrie Vorst and Daniel Krymkowoski for their helpful comments to an earlier draft of this article.

References

Andren K G, Rosenqvist U 1985 Heavy users of an emergency department: psycho-social and medical characteristics, other health care contacts and the effect of a hospital social worker intervention. Social Science & Medicine 21: 261–770

Beckers L L E M 1986 Veel patiënten ten onrechte naar EHBO ziekenhuis. Inzet 10: 22–23

Beunder R E 1993 Klasse-indeling van Eerste Hulp patiënten. Amsterdam, Onderzoekscentrum 1e-2e lijn, Academisch Ziekenhuis der Vrije Universiteit

Beunder R E, Thijs C M 1993 Een Urgentie Meetschaal, een praktisch instrument om de urgentie te bepalen van patiënten op de Eerste Hulp. Amsterdam, Onderzoekscentrum le-2e lijn, Academisch Ziekenhuis der Vrije Universiteit

Bowling A, Isaacs D, Armston J, Roberts J E, Elliott E J 1987 Patient Use of a Paediatric Hospital Casualty Department in the East End of London. Family Practice 4: 85–90

Campbell J L 1994 General practitioner appointment systems, patient satisfaction, and use of accident and emergency services. A study in one geographical area. Family Practice 11(4): 438–445

Caplan C 1975 Emergency room use by patients from a family practice. Patterns of illness and motivation. Journal of Family Practice 2: 271–276

Davies T 1986 Accident department or general practice? British Medical Journal 292: 241–244

Davison A G, Hildrey A C C, Floyer M A 1983 Use and misuse of an accident and emergency department in the East End of London. Journal of the Royal Society of Medicine 76: 37–40

Foroughi D, Chadwick L 1989 Accident and Emergency abusers. The Practitioner 233: 657–659

Grumbach K, Keane D, Bindman A 1993 Primary care and public emergency department overcrowding. American Journal of Public Health 83(3): 372–378

Ingram D R, Clarke D R, Murdie R A 1978 Distance and the decision to visit an Emergency Department. Social Science & Medicine 12: 55–62

Kelly L J, Birtwhistle R 1993 Is this problem urgent? Attitudes in a community hospital emergency room. Canadian Family Physician 39: 1345–1352

Kljakovic M, Allan B C, Reinken J 1981 Why skip the general practitioner and go to the accident and emergency department? New Zealand Medical Journal 93: 49–52

Murphy A W, Leonard C, Plunkett P K, Bury G, Lynam F, Smith M, Gibney D 1997 Effect of the introduction of a financial incentive for fee-paying A&E attenders to consult their general practitioner before attending the A&E department. Family Practice 14(5): 407–410

Padgett D K, Brodsky B 1992 Psychosocial factors influencing non-urgent use of the emergency room: a review of the literature and recommendations for research and improved service delivery. Social Science & Medicine 35(9): 1189–1197

Powers M J, Reichelt P A, Jalowiec A 1983 Use of the emergency department by patients with nonurgent conditions. Journal of Emergency Nursing 9: 145–149

Rieffe C J, Luitse J S K, Springer L 1996 Patienten laten zich niet zomaar wegsturen. Zorgvisie 6: 20–23

Rieffe C, Wiefferink C 1995 Onderzoek naar motieven van patienten om de Eerste-Hulpafdeling van een ziekenhuis te bezoeken. Tijdschrift voor Sociale Gezondheidszorg 73: 463–468

Rieffe C J, Wijkel D 1995 Motivatie van patiënten om de Eerste Hulp te bezoeken. Amsterdam, Onderzoekscentrum 1e–2e lijn, Academisch Ziekenhuis der Vrije Universiteit,

Singh S 1988 Self referral to accident and emergency department: patients' perceptions. British Medical Journal 297: 1179–1180

Wabschall J M 1983 Why parents use the emergency department for non-emergency infant care. Journal of Emergency Nursing 9: 37–40